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WARZYN
ENGINEERING INC

Consulting Engineers • Civil • Structural • Geotechnical • Materials Testing • Soil Borings • Surveying

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October 29, 1980
C 9400

Dr. Harry Sterling
Mason & Hanger -
Silas Mason Company, Inc.
1500 W. Main Street
Lexington, KY 40505

Re: Preliminary Screening of Potential PCB
Dredge Material Disposal Sites

Dear Dr. Sterling:

We are pleased to submit five (5) copies of the enclosed report regarding the preliminary assessment of the potential disposal sites for the PCB contaminated dredge materials associated with the OMC-Waukegan Harbor Project. The preliminary site screening considered criteria specified in the scope of work, regarding the physical/environmental and socio-economic characteristics of each location. The potential disposal sites assessed in this screening process include those privately owned sites and government owned sites specified in the scope of work. In addition, the report also discusses the sites that were to be assessed by telephone inquiry.

If you have any questions regarding the contents, conclusions, or recommendations of this report, please contact us.

Very truly yours,
WARZYN ENGINEERING INC.

Daniel W. Hall

Daniel W. Hall, CPGS
Project Manager

DWH/amh
[WEI 11-3]

PRELIMINARY SCREENING ASSESSMENT
SITE SELECTION AND EVALUATION
FOR A HAZARDOUS
WASTE DISPOSAL SITE

INTRODUCTION

The purpose of this report is to preliminarily screen specific sites for potential PCB contaminated dredge material disposal, based on selected physical/environmental and socio-economic criteria. This report is the first of two to be submitted, the latter report will more thoroughly investigate the potential for PCB contaminated dredge material disposal at selected sites recommended as a result of this preliminary screening assessment, and in addition, at the Outboard Marine Corporation (OMC) property.

Warzyn Engineering Inc. was authorized to perform this investigation by Mason & Hanger-Silas Mason Company, Inc. by a sub-contract agreement dated August 21, 1980. Mason & Hanger-Silas Mason Company, Inc., in turn, is contracted to USEPA, Region V, to present results of this and other associated investigations.

The landfill sites which were assessed in this preliminary screening process include:

Browning-Ferris Industries (BFI) - Lake County, Illinois

CECOS (CER) - Williamsburg, Ohio

C.I.D. - Cook County, Illinois

CECOS - Northern Illinois

Joliet Army Ammunition Plant

Ft. Sheridan Army Facility

Great Lakes Naval Base

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The sites assessed by telephone inquiry include:

Nuclear Engineering - Sheffield, Illinois

Waste Mangement Inc. - Livingston, Alabama

CECOS - possible Northern Illinois site

Information concerning the BFI, CECOS(CER) - Williamsburg, C.I.D., and CECOS - Northern Illinois site was solicited directly from the site owners and/or their consultants, the Illinois Environmental Protection Agency (IEPA), and the Illinois State Geological Survey. Specifically, reports and waste disposal permit applications and associated engineering plans and specifications were requested from the site owners and/or the Illinois Environmental Protection Agency of these privately owned sites. The Illinois State Geological Survey provided supplementary information about the geology of each site. Preliminary information requests made through the management of C.I.D. and CECOS - Northern Illinois (Ottowa-Brockman) sites were denied. Neither of these two sites were interested in being investigated for potential PCB contaminated dredge material disposal. As a result, these two sites were eliminated from further considerations in the preliminary screening process.

Information concerning the three government sites was requested from the Illinois EPA and the Illinois Geological Survey. In addition, the USEPA sent questionnaires to each of the three government sites, requesting information about disposal practices and other available information regarding the hydrogeology of the sites. The three sites did not respond to the questionnaires prior to the preparation of this preliminary screening report. The government sites were not directly contacted for information by Warzyn Engineering Inc. Telephone inquiries were directed to Nuclear Engineering - Sheffield, Illinois and Waste

Management - Livingston, Alabama, to preliminarily assess site availability for potential PCB dredge material disposal. These sites were not assessed in the same detail as the sites listed above, however, enough information was gathered to make judgements as to whether the sites exhibit potential for disposal. Contact was also made with Mr. Pete Kinicles, of CECOS Management, to inquire about a site reported to be developed as a PCB disposal facility in northern Illinois. After we conferred with Mr. Kinicles, it was evident that the report was not well founded. Each of the remaining sites in this investigation were assessed per the physical/ environmental and socio-economic criteria that were outlined in the scope of work, including; topography, soils and bedrock; groundwater and surface water; site engineering and operations; haul distance to site, traffic patterns and neighborhood characteristics; and the acceptability and availability of each site as a PCB dredge material disposal facility based on site ownership and local and state zoning. Wherever possible, the information about the landfill sites was compared with USEPA and state regulations regarding PCB waste disposal. Specifically, the information regarding USEPA approval was compared to the May 31, 1979 Federal Register (EPA; Polychlorinated Biphenyls; Criteria Modification; Hearings) chemical waste landfill regulations and criteria. Also, each of the primary, privately owned facilities were requested to detail the availability to accept the specific quantities and concentrations of PCB dredge materials that were outlined in the scope of work to further assess the potential for disposal at each of those sites.

RESULTS OF PRELIMINARY SCREENING

Information compiled about the two privately owned sites (BFI and CECOS(CER) - Williamsburg) and the three government sites (Joliet Army Ammunition Plant, Ft. Sheridan and Great Lakes Navel Base) are presented on Drawings C 9400-1 and 2. Drawing C 9400-1 presents information about the privately owned sites, while Drawing C 9400-2 presents information about the government facilities. Relative locations of each of the sites to the Waukegan Harbor area are shown on Drawings C 9400-B1 and B2.

A. Privately Owned Sites

The privately owned sites remaining in the preliminary screening process include the Browning Ferris Industry site and the CECOS(CER) - Williamsburg, Ohio site. The C.I.D. - Cook County, Illinois site and the CECOS - Northern Illinois (Ottawa-Brockman) site were eliminated from the entire screening process when they indicated that they were not interested in being investigated for potential PCB contaminated dredge material disposal at their sites.

1. Browning-Ferris Industries Site

Presently, Browning-Ferris Industries (BFI) operates a licensed hazardous waste disposal site on approximately 59 acres in the northwest 1/4, Section 7, T46N, R12E, Lake County, Illinois and is located about 12 miles from the Waukegan Harbor area by roadway distance (See Drawing C 9400-B1 and B2). An adjacent 74 acre site to the east is presently permitted for development by IEPA, but it does not yet have an operational permit, nor is it presently proposed to be licensed for hazardous waste disposal. Information regarding the prelimininary screening criteria is presented in Table 1 (Drawing C 9400-1).

The information presented in Table 1 indicates that the site generally meets the USEPA requirements regarding PCB disposal with respect to topographic relief (low to moderate), clay soil thickness (4'), soil permeability (1×10^{-7} cm/sec.), and P200 content (greater than 30%). Similarily, the site also meets the IEPA soil thickness requirement of 10', however, soil permeability tests indicate that the

soils only marginally meet the IEPA permeability requirement of 1×10^{-8} cm/sec for hazardous waste sites. Engineering modifications, such as recompacting the base grades and side walls of the site or the use of synthetic liners, are apparently acceptable in lieu of the soil permeability conditions.

Depth to groundwater at the site does not meet the USEPA requirement of 50' below historical high water table. Here again, mitigating features such as recompaction of the sidewalls and base grades of the site, the use of synthetic liners and the use of a leachate collection system should provide an environmentally safe disposal area, despite the somewhat shallow groundwater condition. The site is not located in a flood prone area nor is it within the 100 year flood plain of any surface water body.

The BFI site does not have a leachate collection system, which is required by USEPA for PCB disposal. As indicated in Table 1, the installation of a leachate collection system and several other on-site engineering modifications are likely necessary to facilitate PCB disposal at this site. However, these engineering modifications should not be difficult for a site such as BFI to quickly develop for the PCB waste handling period. Based on our recent site visitation, the BFI site has good daily operations, although special site operations and record keeping procedures would have to be designed and implemented to document the disposal of PCB waste.

The BFI site is located relatively close to the Waukegan Harbor area (about 12 miles by roadway distance) with good access to the site. The land useage and sparse population in the vicinity of the disposal site are also favorable conditions for disposal there.

BFI has indicated that they are willing to accept all concentrations and quantities of PCB contaminated dredge materials, however, they have also indicated that they do not want to accept only the most concentrated portion of the waste. The site is presently licensed as a hazardous waste disposal site and the site would require permits by both the USEPA and IEPA to accept PCB waste.

In summary, the BFI site appears to be an excellent prospect for disposal of PCB contaminated dredge materials, based on the soil types, location, land useage and population in the vicinity of the site, and the willingness of the BFI site management to accept all concentrations and quantities of PCB contaminated dredge materials. However, the use of the site for PCB waste disposal area is conditional upon certain engineering modifications and modifications to site operations to make the site environmentally safe. We recommend that this site be included in the final site evaluation.

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2. CECOS(CER) - Williamsburg, Ohio Site

The CECOS(CER) - Williamsburg, Ohio, is located at 5092 Aber Road, in Jackson Township, Clermont County, Ohio. The site consists of about 211 acres of nearly level, poorly drained, somewhat wooded property that is licensed for hazardous waste and PCB disposal and is owned and operated by Clermont Environmental Reclamation Company (CER). The location of the CECOS(CER) - Williamsburg is shown on Drawing C 9400 B2. Table 1 presents the information concerning the preliminary screening assessment of the site.

The information in Table 1 indicates that the site meets USEPA requirements for PCB disposal for topography (low to moderate), soil thickness (4'), and soil permeability (1 x 10^{-7} cm/sec). In addition, the upper 6' to 8' of clay soils also meet USEPA requirements for P200 content (greater than 30%) and Atterburg limits (LL greater than 30%, PI greater than 15%). The underlying clay till soils meet the P200 requirements, however, do not meet the Atterburg limit requirements. The site only conditionally meets the soil permeability requirements of OEPA (1 x 10^{-7} to 1 x 10^{-8} cm/sec).

Depth to groundwater at this site does not meet USEPA requirements (50' to historical high water table) and in certain areas, does not meet OEPA requirements (5'). The site is designed as a below the zone secured landfill with dry cell development which makes disposal at this site environmentally safe despite the shallow groundwater levels. Streams on and adjacent to the disposal property apparently have flash flood characteristics, however, the disposal sites are not in flood prone areas.

The site is presently designed and operated to accept PCB materials, and therefore, the acceptability of the site as a PCB disposal area has already largely been determined. The engineering of the site appears to have been adequately designed, however, the only operational drawback with the site is a problem with the maneuverability of large trucks within the disposal areas.

Haul distance to this site from the Waukegan Harbor area is very far, about 350 miles. This is a very unfavorable condition for disposal at this site. However, land useage and the sparse population in the vicinity of the landfill site are favorable conditions.

CECOS site management has indicated that they will accept all concentrations and quantities of the PCB contaminated dredge materials at their site. The site is presently zoned as a non-conforming use, however, this situation will be reviewed again in 1981.

In summary, the CECOS - Williamsburg, Ohio site has favorable characteristics for the disposal of PCB contaminated dredge materials based on site topography, soils, engineering, its status as a licensed site and its willingness to accept all concentrations and quantities of PCB contaminated dredge materials. Despite all these favorable characteristics, the sites acceptability as a disposal area for the Waukegan Harbor project may be over-ridden by the long haul distance between the Harbor area and the landfill site. Therefore, we conditionally recommend this site for the final site evaluation. Its further evaluation will be based on cost estimates performed during the early stages of the final site evaluations to determine the economic impact of transporting the PCB contaminated dredge materials from the Harbor area to the site, as opposed to the cost of development of other disposal alternatives. Specifically, the handling costs will be compared to the cost of engineering modifications proposed for the Browning-Ferris Industries site to make it acceptable for PCB disposal. If the hauling costs associated with the CECOS(CER) - Williamsburg site become prohibitively expensive with respect to the cost of other disposal alternatives, we will not recommend further evaluation at that site.

B. Government Sites

Information regarding the preliminary screening assessments of the three government owned sites is presented in Table 2 (Drawing C 9400-2). In general, the same criteria were used in evaluating the government sites as were used for the privately owned sites, however, the amount of information that was available for the government sites was not as detailed as the information was for the private sites.

1. Joliet Army Ammunition Plant

The Joliet Army Ammunition Plant covers about 36 sq. miles and is located about 7 miles south of Joliet, Illinois (see Drawings C 9400-A1 and A2). Presently, the plant has an unlicensed landfill site about 9.4 acres in size in the NE 1/4, NE 1/4, Section 35, T34N, R9E. The present landfill operation consists of a gravel pit that was excavated prior to 1940 and has been in use as a landfill since 1955. Table 2 (Drawing C 9400-2) presents information concerning the preliminary screening assessment of this site.

Most of the JAAP property has low to moderate topographic relief, which meets USEPA requirements. However, the site is divided such that the western 1/3 of the site is basically a lowland, marshy area, while the eastern 2/3 of the site is relatively high ground. These two topographically different parts of the site are separated by a north-south trending escarpment, approximately 50' in height.

Only the soils in the upland (eastern 2/3) of the site generally meet the USEPA (4') and IEPA (10') soil thickness requirements. In addition, the soils in the western 1/3 of the site are coarse grained soils and therefore, on that basis, do not meet the soil type or permeability requirements. The presently operating landfill site at the JAAP facility is located in this western 1/3 of the site where these coarse grained soils lie over shallow bedrock. This is an entirely unacceptable location for potential PCB contaminated dredge material disposal.

Depth to groundwater at the site generally does not meet USEPA requirements (50' to historical high water table) and in addition, very shallow groundwater or standing water exists in the western 1/3 of the site. Furthermore, four streams flow through or adjacent to the site, such that much of the western 1/3 of the site is in a flood prone area. However, some of the eastern 2/3 of the site may meet the depth to groundwater requirement, and are generally not in flood prone areas.

No details were available to explain the site engineering and site operations at the JAAP facility. However, it is assumed that any site chosen on the site likely would have to be completely relocated and redesigned per USEPA and IEPA requirements to facilitate PCB disposal. This assumes that the site design and operation of the presently operated facility is not compatible with PCB waste disposal.

The hauling distance to the JAAP site from the Waukegan Harbor area is a moderate distance relative to the other sites, however, routing to the site would be predominantly along interstate highways. The facility is located in a sparsely populated area south of Joliet, IL. The acceptability of disposal of PCB materials at the site is not presently known as the site is under Federal Jurisdiction, and we were not allowed to make direct contacts with the facility.

In summary, the present landfilling operation on the JAAP site is unacceptable as a PCB disposal site, based on the hydrogeology, and probable operations of the existing landfill. Portions of the site appear to have potential for development based on the physical and environmental criteria in the eastern 2/3 of the site. However, site development would have to be initiated from the feasibility stage and carried on through the final design stage, which is both time consuming and expensive. The moderate haul distance to the site and the sparsely populated area are probably not strong enough points to offset the cost associated with locating and developing the site. Therefore, we do not recommend that the JAAP site be considered in the final evaluation.

2. Ft. Sheridan Army Base

Ft. Sheridan is located in parts of Sections 10, 11, 14 and 15, T43N, R12E, (see Drawings C 9400-B1 and B2). Presently, the facility operates a licensed 8 acre landfill site in a ravine in the northwest 1/4 of Section 14, which accepts general solid waste excluding toxic and hazardous wastes.

In general, most parts of the Ft. Sheridan property have low to moderate topography, which meets USEPA requirements. The site is located along Lake Michigan such that a 60' to 80' bluff is present at the shoreline, and several ravines cut these bluffs perpendicular to the shoreline.

The on-site clay soils generally meet the USEPA (4') and IEPA (10') soil thickness requirements. The soil permeability meets the USEPA criteria (1×10^{-7} cm/sec) and marginally meets the IEPA requirements (1×10^{-8} cm/sec). However, the soils do not meet USEPA Atterburg Limit requirements (LL greater than 30%, PI greater than 15%). Data on P200 content was not available.

Depth to groundwater based on unstablized water levels measured in newly installed groundwater monitoring wells indicate that the site apparently does not meet the USEPA requirements regarding depth to groundwater (50' to historical high water table). The site is not located within a flood prone area.

The presently operating land disposal site on the property does not have a leachate collection system, therefore, it does not meet USEPA requirements regarding PCB disposal. In addition, the present site has some engineering problems and would require extensive modifications to make it an acceptable site for PCB disposal. It is highly likely that a suitable PCB disposal site would have to be relocated on the property.

The haul distance to the site from the Waukegan Harbor area is relatively short, about 12 miles. However, the site is located in a densely populated, residential area with housing that reflects middle to upper income families. Furthermore, the property itself appears to be densely developed with buildings.

The acceptability of PCB waste materials at the site is presently not known, as we were not able to make direct contact with this site. The site is under Federal jurisdiction.

In summary, topography and soil conditions are generally suitable for PCB disposal facility development at the site. The presently operating landfill site, however, is probably not suitable for PCB disposal based on its location at the site and the associated problems described in Table 2. It is likely that any PCB disposal facility developed on this site would have to be initiated at the feasibility stage and brought through to the final design of such a facility. In spite of the relatively short haul distance, developing a new site is costly and time consuming. In addition, the heavily developed site is located in a middle to upper income, densely populated residential area, which is not conducive to disposal of hazardous wastes. Therefore, we do not recommend that the Ft. Sheridan site be considered in the final evaluation of potential sites.

3. Great Lakes Naval Base

The Great Lakes Naval Base is located in parts of Sections 4 and 9, T44N, R12E, (See Drawings 9400-A1 and A2). Little is known about this site as virtually no information was available from the IEPA or Illinois State Geological Survey regarding the site conditions and the present land disposal practices at the site. Table 1 presents what little information was available for the site to perform this assessment.

This site generally meets the USEPA requirements regarding topography and soil thickness, however, some sand seams were noted at shallow depths in the few available boring logs for the site. No other soil data was available. Depth to groundwater at the site apparently meets the USEPA requirements (50' to historical high water table).

No information is available about the landfilling operations at the site. However, it is likely that the disposal site would have to be completely remodified or relocated for disposal per USEPA and IEPA requirements. This redevelopment of the site would have to initiated at the feasibilty level and carried on through to the final design. This is a time consuming and costly effort.

The most favorable condition about this site is that the haul distance from the Waukegan Harbor to this site is very short, about 4 miles. However, the route to the site and the area in the vicinity of the site is a heavily populated, urban, residential area.

The acceptability of this site for disposal of PCB dredge materials is presently not known, as we were not able to make direct contact with the site operators. This site is under Federal jurisdiction.

In summary, the site appears to have some favorable characteristics with respect to soils and groundwater, however, additional data is needed to confirm these conclusions. No information is available about present landfill site operations, however, it is likely that the facilities are not adequate for PCB disposal, and remodification or relocation and design of the site would be required. Redevelopment of a new site would necessarily be costly and time consuming. Despite the very short haul distance to the site, the site is located in a heavily populated area which is not conducive to hazardous waste disposal. Therefore, we do not recommend that this site be considered in the final evaluation of potential sites for PCB contaminated dredge disposal.

C. Telephone Inquiry Sites

The site managers from the Nuclear Engineering - Sheffield, Illinois, and Waste Management Inc.,- Livingston, Alabama sites were contacted via telephone to discuss the site characteristics and availability of these sites for potential PCB dredge material disposal at those sites. The location of these two sites are noted on Drawing C 9400-B1

1. Nuclear Engineering - Sheffield, Illinois

Presently, this site is not licensed to dispose of PCB materials in concentrations greater than 50 parts per million, however, is licensed as a hazardous waste landfill site. Historically, PCB materials were disposed at the site until it was required for sites to be licensed for PCB disposal by EPA. At that time, the site management decided not to license the site for PCB disposal. According to site management, there are no apparent technical problems associated with developing this site for PCB disposal, however, the market is presently too small in their area and the public opposition too large to develop it. No local ordinances prevent the site from being developed at this time. The site management indicated that at the potential volume associated with the Waukegan Harbor project, it would be both profitable and in the interest of Nuclear Engineering to develop the site for PCB disposal. At volumes less than the approximately 200,000 cu.yds. of PCB dredge materials, it would probably not be economical for them to develop the site.

Geologically, the site was described as having a natural till with permeabilities of about 10^{-8} cm/sec under 2/3 of the site, while 1/3 of the site was a blended, compacted liner to the same permeability specification. In addition,

a berm around the 40 acre site is keyed into the till and compacted liner. Shale bedrock is located about 40' below surface. Groundwater elevation is at about 40', which does not meet USEPA specifications. However, the nearest useable aquifer is about 400' below ground surface. The area is not flood prone and only one intermittent creek is within the vicinity of the site.

The landfill site is located in a rural area with little traffic, however, the roads are maintained to handle the large refuse hauling trucks that come to the landfill site. The road to the site was described as a four-lane gravel road of which the landfill site is responsible for the maintenance. The haul distance is approximately 155 to 165 miles. The route to the site appears to be along Interstate Highways I-94 South and I-80 West to Sheffield, Illinois.

Apparently, the area within the vicinity of the site is sparsely populated with three local towns consisting of 400-1,000 people per town. Most of the area is grazing land as the area was a redeveloped strip-mine area and the soils are not tillable.

The site engineering includes an underdrain system in every disposal trench. However, site management indicates that they have never collected any leachate from the system, as they promote surface water runoff and little infiltration through the use of tight cover soils. In addition, they are above the water table such that groundwater infiltration is not a problem at the site.

In summary, the Sheffield, Illinois site appears to have some potential for development, based on the physical/ environmental and socio-economic data that was provided by the site managers. However, the site is located quite a distance from the Waukegan Harbor area and may limit the potential for disposal at this site. We recommend, however, that initial hauling costs be investigated for this site and that further evaluation of the site (at the preliminary screening level) be completed.

2. Waste Mangement - Livingston, Alabama

This facility is presently licensed as a hazardous waste and PCB disposal site by the Alabama EPA and USEPA. The site management indicated that they were interested in contracting for the work, but would need to know specifics about it before they could make any assurances. The area is located in an extremely rural part of central Alabama near the Mississippi State Line with very sparsely populated farming communities. The area is located in a gently rolling terrain, which meets USEPA requirements. Geologically the site is located in a calcareous chalk formation,

with permeabilities of about 10^{-7} to 10^{-9} cm/sec., which meets USEPA requirements. This chalk unit apparently is about 500-700' thick. Apparently, depth to groundwater is about 1100-1200' below ground surface, which substantially exceeds the USEPA requirements. The area is not located within a flood prone area.

The site is engineered with a leachate collection system which meets USEPA requirements. The base of the site is lined with 4' of compacted clay which consists of pulverized chalk from the bedrock formation and residual clay soils that have developed on top of the chalk.

This site is located an extreme distance from the Waukegan Harbor area, on the order of 600 miles. Despite all other conditions apparently being favorable from hydrgeologic and socio-economic standpoints, the haul distance to this site is probably the over-riding factor. Hauling costs to this site would be uneconomical when compared to the development of other, closer sites. Therefore, we do not recommend that this site be evaluated further.

SUMMARY AND RECOMMENDATIONS

As a result of this preliminary screening process, we provide the following summary and recommendations:

1. The BFI site should be included in the final evaluation for potential PCB disposal at that site.

2. The CECOS(CER) - Williamsburg site is conditionally recommended for the final site evaluation after a study is performed to determine the hauling costs to the site from the Waukegan Harbor area relative to the anticipated costs of site development at other, closer sites, specifically, the BFI site.

3. We do not recommend that the Joliet Army Ammunition Plant, Ft. Sheridan or Great Lakes Naval Base be considered in the final evaluation of sites, based on the premise that the sites would have to be completely re-developed from the initial feasibility through the final engineering phases, which is costly and time consuming.

4. We recommend that the Sheffield, Illinois site be further investigated at the preliminary screening level.

5. We do not recommend that the Livingston, Alabama site be further investigated at the preliminary screening level, based on the haul distances to the site, while other, closer sites are available.

CLOSING REMARKS

We trust that the information and conclusions contained in this preliminary screening report are to your satisfaction and consistent with your needs. We will begin preparation of the final screening report based on our recommendations in this report and our discussions about the OMC site, unless you direct us otherwise.

If you have any questions or comments about this report or the final screening report, please contact us immediately.

Respectfully submitted

WARZYN ENGINEERING INC.

Roger C. Cooley

Roger C. Cooley, P.E.
Project Engineer

Daniel W. Hall

Daniel W. Hall, CPGS
Project Manager

RCC/DWH/amh
[WEI-11-3]

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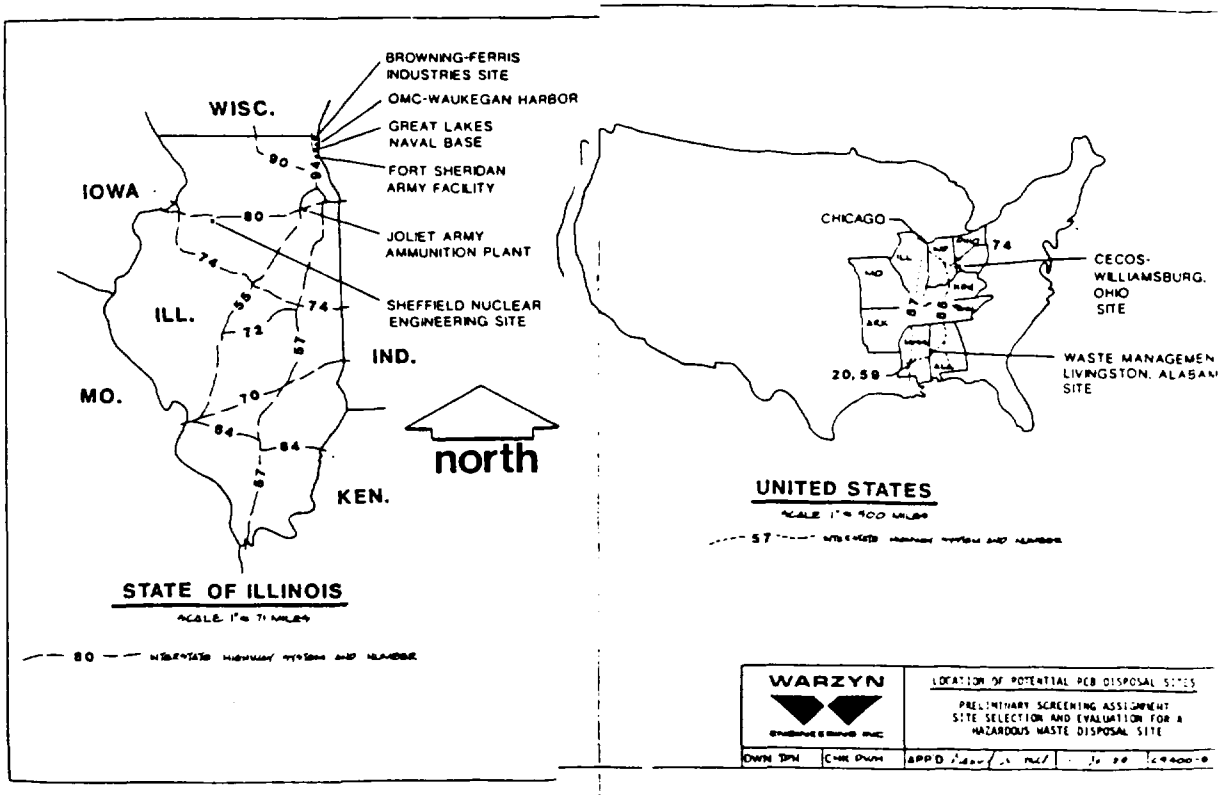
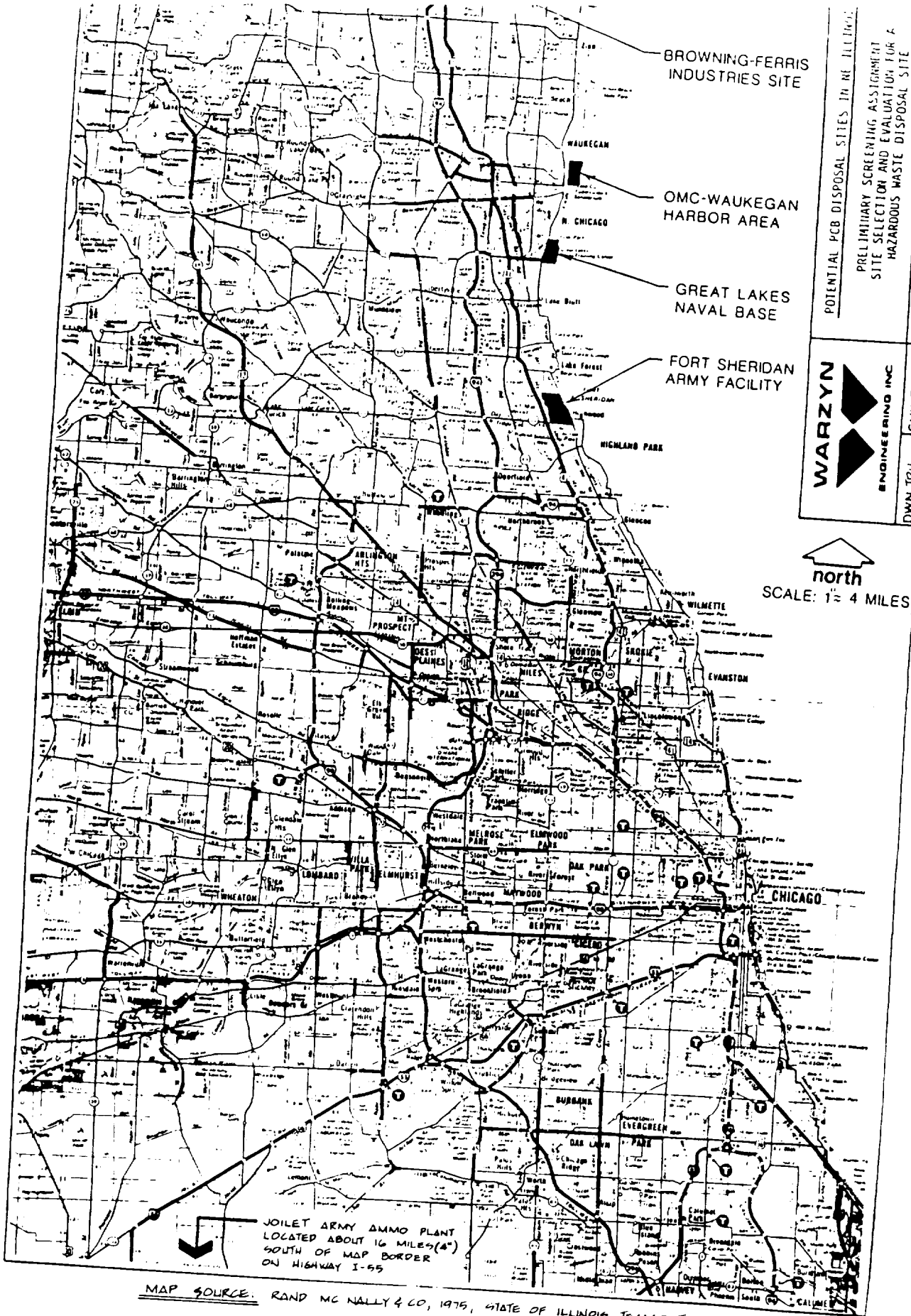

BROWNING-FERRIS INDUSTRIES SITE
OMC-WAUKEGAN HARBOR
GREAT LAKES NAVAL BASE
FORT SHERIDAN ARMY FACILITY
JOLIET ARMY AMMUNITION PLANT
SHEFFIELD NUCLEAR ENGINEERING SITE
WISC.
IOWA
ILL.
IND.
MO.
KEN.
north
STATE OF ILLINOIS
CHICAGO
CECOS-WILLIAMSBURG, OHIO SITE
WASTE MANAGEMEN
LIVINGSTON, ALASAN
SITE
UNITED STATES
WARZYN
LOCATION OF POTENTIAL PCB DISPOSAL SITES
PRELIMINARY SCREENING ASSIGNMENT
SITE SELECTION AND EVALUATION FOR A
HAZARDOUS WASTE DISPOSAL SITE



POTENTIAL PCB DISPOSAL SITES IN NE ILLINOIS

PRELIMINARY SCREENING ASSIGNMENT
SITE SELECTION AND EVALUATION FOR A
HAZARDOUS WASTE DISPOSAL SITE

APP'D | CHK DWN | DWN TDH

WARZYN ENGINEERING INC

north

SCALE: 1" ≈ 4 MILES

MAP SOURCE. RAND MC NALLY & CO, 1975, STATE OF ILLINOIS, TEXACO TRAVEL MAP.